

IN THE CLAIMS:

Claim 1 (currently amended): A ball bearing for use in medical and dental applications comprising:

an inner race and an outer race coaxial with the inner said outer race having a bottom surface on which is provided a groove for accommodating a retaining ring and a cover disk. said retaining ring having an inner side and an outer side and said cover disk being positioned adjacent said inner side of said retaining ring;

bearing balls disposed between said inner race and said outer race; and

a cage comprising a composite material of heat cured epoxide resin as well as fibers which form a fibrous web which are implemented as a carrier material for the epoxide resin, the fibers being filled with lubricant;

wherein said bearing balls are guided by said cage, and wherein one of said inner race and said outer races rotates at a rate of about 500.000 rotations per minute. and wherein said ball bearing has an outer diameter of 30mm or less.

Claim 2 (previously presented): A ball bearing as claimed in claim 1, wherein the epoxide resin is temperature resistant at temperatures higher than or equal to 134°C, and is pressure resistant, at pressures above 1 bar, and wherein the epoxide resin is moisture resistant, under a saturated vapor atmosphere.

Claim 3 (previously presented): A ball bearing as claimed in claim 1, wherein the composite material is entirely comprised of epoxide resin as well as fibers.

Claim 4 (previously presented): A ball bearing as claimed in claim 1, wherein the fibers are natural fibers and/or synthetic fibers.

Claim 5 (previously presented): A ball bearing as claimed in claim 1, wherein the fibers are developed as a strip-shaped carrier material, for the epoxide resin.

Claim 6 (currently amended): A ball bearing as claimed in claim 5, wherein the carrier material is implemented as a structured cloth fabric, ~~in particular cloth~~.

Claim 7 (currently amended): A ball bearing as claimed in claim ~~[[6]]~~ 1, wherein the carrier material is developed as a fibrous web.

Claim 8-9 (canceled).

Claim 10 (currently amended): A ball bearing as claimed in claim 1, wherein said ball bearing has an outer diameter ~~[[is]]~~ between 6mm and 12mm.

Claim 11 (new): A ball bearing as claimed in claim 1, wherein said cage is one of a crown cage, a comb cage and a solid cage.

Claim 12 (new): A ball bearing as claimed in claim 1, wherein said ball bearing can withstand a minimum of 2000 autoclaving cycles.